**Summary of the First COMPARE meeting in Sardinia, Italy**

April 2nd-4th 2014

Participants: Panayotis Antoniadis, Ileana Apostol, Paolo Dini, Valeria Federighi, Alexandros Kioupkiolis, Philipp Klaus, Laura Sartori

**Introduction**

COMPARE is a networking project that aims to bring together researchers and practitioners interested in the topic of self-organization, and in particular in the role the Internet can play in the self-organization of socio-technical and economic systems in different online and offline contexts. COMPARE facilitates the sharing of vocabularies, methodologies, values, and objectives among its participants in order to produce a common framework for studying self-organization in practice that will allow meaningful comparisons, abstractions, and the development of new ideas. This interdisciplinary exchange is being carried out in the context of two specific questions:

1. What can we learn from the experiences of self-organization in real life for designing the future Internet?
2. How can the Internet facilitate self-organization driven by local values and objectives?

To begin to answer these challenging questions, COMPARE has brought in contact two EINS partners specialized in interdisciplinary research (ETH and LSE) with three external partners each bringing a unique perspective: 1) The Political Science Department of the Aristotle University of Thessaloniki (AUT), which is concerned with the study of political phenomena: political institutions, processes and antagonisms; 2) Sardex, a not-for-profit SME whose main project is the complementary currency network Sardex.net operating on the island of Sardinia, and 3) the International Network for Urban Research and Action (INURA), an organization with a self-organizing, non-hierarchical, decentralized structure involved for more than 20 years in action and research in localities and cities across the globe. The complementary contributions brought by the partners in this diverse team are shown schematically in Figure 1.

![Figure 1. A simplified view of the diverse perspectives on self-organization in COMPARE](image)
The main objective of COMPARE is to build a network of researchers and practitioners who have diverse understandings on the concept of self-organization of socio-technical and economic systems in different online and offline contexts. We plan to do this by facilitating a dialogue between distant perspectives, that stretch from complex systems and networking to political theory and urban planning, by narrowing down their object of observation and analysis to (the evolution of) self-organized communities in cities. To focus our efforts under the very limited project budget, we decided to organize three meetings – inviting a few external guests – combined with guided visits of local self-organized communities and an interdisciplinary symposium at the end of the project. Our output will be in the form of reports on these face-to-face interactions at our workshops, and journal and conference articles based on the collaborative theoretical and applied research of the partners.

The first meeting of the COMPARE project took place on at the premises of SARDEX in Sardinia (Cagliari and Serramanna) on April 2nd-4th 2014. All the partners of the project were present: Panayotis Antoniadis (ETH Zurich, Dept. of Information Technology and Electrical Engineering), a computer scientist and engineer, Ileana Apostol (ETH Zurich, Chair of Urban Sociology at Dept. of Architecture), an architect and urban planner, Paolo Dini (London School of Economics), an interdisciplinary scientist, Alexandros Kioupkiolis (Aristotle University of Thessaloniki), a political theorist, Philipp Klaus (INURA Zurich Institute) a geographer and artist, and our host Giuseppe Littera (SARDEX) an activist and entrepreneur. In addition we were happy to welcome in our group two external guests, namely Laura Sartori, a sociologist at Bologna University, an EINS partner, and Valeria Federighi, a graduate student at the department of Architecture at Politecnico di Torino.

We invested a significant amount of time to learn about the different perspectives. All participants gave an introductory presentation of 45min-1hour on their research field, their own activities, and their view on our collaborative project, followed by questions and discussions of equal time. In the remaining time, we visited the premises of Sardex both in Cagliari and Serramanna, visited some of the businesses that are part of the network, and discussed at length the operation of Sardex, its challenges and visions for the future.

This report summarizes the discussions and outcomes of this meeting, and provides a list of collaborative papers and other activities carried out by the partners after the end of the meeting.

2. The meeting

Our first meeting took place at Cagliari and Serramanna at the premises of Sardex.net. Since many of the partners had never met before and we don't all share the same vocabularies and disciplinary perspectives we decided to give sufficient “air time” to all project partners (45min presentation and 45min discussion) to introduce their background and unique perspective on self-organization. More specifically, a short summary of the main partners presentation follows (the main content of Giuseppe Littera's presentation is included in the description of Sardex in the next section).

Panayotis Antoniadis gave a short introduction to the Internet as a self-organized system, including the operation of its main protocols, IP, TCP, and BGP. He explained how its architecture is based on the “end-to-end” and “design for tussle” principles (Clark et al. 2005), according to which network designers should avoid to implement hard decisions in the network core, allowing it to adapt according to different social or economic conditions, through decisions taken by independent actors. Then he explained how the virtual space, built from our online interactions, is so densely populated that it practically overlays our physical world, forming a new hybrid realm, generating many possibilities and promises toward the visions of e-democracy, and smart or intelligent future cities. However, there are many threats due to the tremendous power gained by private corporations with commercial interests (such as Google and Facebook, for example).

For this, Panayotis introduced a new project initiated at ETH Zurich in collaboration with Ileana Apostol, as an interdisciplinary research project to bridge theory and practice, and enable remote disciplines such as behavioural economics, human-computer-interaction (HCI), networking, and
urban studies to interact around the design of an open source ICT framework, called NetHood Toolkit (Antoniadis and Apostol 2013). Such a toolkit aims to give the power to citizens to shape their hybrid urban space according to their values and objectives and claim their “right(s) to the hybrid city” (Antoniadis and Apostol 2014).

Paolo Dini, as a radically interdisciplinary researcher with initial training in aerospace engineering and experience in physics pedagogy, board-level electronic design, interdisciplinary media research, social science, theoretical computer science, and applied mathematics, brought to our group 25 years of experience in building bridges across disciplines. During his presentation, he provided a sketch of the theoretical landscape of social science (Dini and Sartori 2013), defining basic terms and concepts, laying out a first meta-theoretical framework organized around the two dichotomies, objectivism/subjectivism and individualism/holism that is meant to help in the ‘decoding’ of social science writings and ideas. Then he introduced conflict as a third fundamental dimension of social science and elaborated briefly on the implications for political theory and political engagement. He then added a fourth dimension, value, and invoked economic anthropology as a rich and fruitful theory through which we can understand phenomena like open source and the Commons. Building on this basic set of analytical lenses, he also gave a very brief summary of the main points of David Graeber’s book on an anthropological history of debt (2011).

Finally, Paolo outlined a possible strategy for local action, that he called the social construction of economic identity, through a particular kind of alternative currency, which appears to enable a gradual and constructive resistance to the political economy forces at play, contributes to positive GDP accounting and tax revenue, remains embedded in social structure, and carries the potential for wider cultural transformation. He suggested that we should move “from the commodification of social values to the colonisation of economic values (by social values)”, a phrase that was often used as a reference in our discussions related to the complementary nature of currencies like Sardex, which has the power to transform the way people think and trust each other.

Ileana Apostol provided a short introduction to the urban planning perspective in the mirror of the topic of self-organization, and with the help of visuals gave us a historical overview of city development, ranging from grassroots communities to top-down planned cities, which was organized in five parts:

1) The Beginnings, in which she illustrated various forms of living together in prehistoric times, ranging from fortified urban settlements during the neolithic age (e.g. Jericho, 8000-2700 BCE), through clustered urban settlements (i.e. Catal Hoyuk, 6500-5500 BCE), to more flexible agricultural settlements (e.g. Mohenjo Daro in the Indus Valley, 3000-1800 BCE), as well as the first monetary and legal systems, starting with the Sumerian shekel and the Law Code of Hammurabi;

2) The Grid was presented as a fast and rational solution to structuring the city by means of a regular physical layout, irrespective of topography or urban fabric, and examples include the Hippodamic Plan of Miletus, the North American Colonial Grid, and the Plan Voisin for Paris by Le Corbusier (1925);

3) Utopia and the ideal city is the section which showed some attempts during history to plan urban communities based on ideology such as defense purposes (Palma Nova, Veneto), ideals of order and harmony (the Vitruvian ideal city), egalitarian ideals (the Island Utopia by Thomas More in 1516), the theocratic model (the City of the Sun / Civitas Solis by T. Campanella in 1602), social ideals (the Phalanstere by Charles Fourier), ecology (the Garden City movement), and human scale communities in the contemporary US within the New Urbanism movement;

4) Publicus as Commons in the Middle Ages developed the idea of settlements based on communities of interest, which were exemplified through monastic communities, university towns, walled and guardian burgs, and trade clusters of guilds and their network during the Hanseatic League;
5) Contemporary examples of convivial neighborhoods brought to the fore the current spaces for social life from markets and pedestrian streets to urban political actions like Village Vancouver transition initiative, the grassroots spatial struggle at Isola Garibaldi neighborhood in Milan, and the State-initiated program of social integration in Germany, Soziale Stadt. She concluded her presentation with reflections on the role of the public authority and planning professional knowledge in the context of more and more frequent self-organized actions within current process of urbanization.

Alexandros Kioupkiolis gave us an introduction to Political Theory, which studies the forms of the political organization (government) of society, the different possible modes of collective self-organization that have always occupied centre stage in his research, usually under the labels of ‘democracy’ and ‘autonomy.’ As he explained, contemporary Political Theory, as represented by Michael Hardt and Antonio Negri, Richard Day, Simon Critchley, John Holloway and Saul Newman, to name but a few thinkers, reflects on autonomous social movements and forms of democratic politics outside the state and the market. These dismiss top-down power relationships and work through a multitude of social agents who collaborate equally and directly in open horizontal networks, producing autonomously determined relations, ideas, feelings and programs. The ‘Occupy Wall Street Movement’ as well as various ongoing experiments in an emergent social economy of solidarity provide salient recent examples of such non-hegemonic, egalitarian modes of self-activity, which are identified as the main innovation of actual democratic practice. These movements are now thoroughly and critically analysed by political theory as processes of social self-governance, self-empowerment and political renovation.

Alexandros then presented briefly his work on the new understandings of democratic politics and mobilization that are being elaborated in light of current shifts in formal politics and systems of governance, the expansion of post-Fordist modes of flexible, network production, the growth of a partly autonomous social economy and new collective movements aspiring to enhanced participation, solidarity and social justice. These themes are taken up and worked out in an edited volume on ‘Radical democracy and collective movements today’ (Kioupkiolis, forthcoming) and a series of papers and work in progress, including the article ‘Late agonies of liberty in common’ (Kioupkiolis, forthcoming) and the chapter ‘Self-managing the commons in contemporary Greece’ (Kioupkiolis, forthcoming). Finally, Alexandros gave us a short overview of the actual Greek experience, which can offer valuable critical purchase on these topics, as Greece has become a real-life laboratory of evolving forms of social self-organization and self-reconstruction, witnessing an on-going growth of economic activities of solidarity and mutual aid (work collectives, time sharing banks, LETS (Croall 1997), social clinics, social grocery stores and so on) in response to the dire economic meltdown since 2010. As he concluded “everything is political”.

Philipp Klaus, introduced the International Network for Urban Research and Action, INURA, a non-governmental and non-profit organisation with a self-organising, non-hierarchical, decentralised structure. Since 1991, a conference is held every year in a different city, organised by a local team. People gather for exchange and mutual learning about projects and developments in cities around the world. Public events are part of the conference, as well as visits to neighbourhoods, local initiatives, and social and cultural centres. The dissemination of INURA’s principles and knowledge on best practices is achieved also by means of international comparative urban studies. Some of these studies are already published in two books (INURA eds. 2004 and 1998), as well as an on-going comparative mapping project of more than 30 cities all over the world by the name ‘New Metropolitan Mainstream’ (see www.inura.org). As he stressed, one of the fundamental principles of INURA is: think, research, talk, share, spread AND also act. INURA tries to show that flat hierarchies are possible, power should not concentrate too much, and in this case participation is enhanced and people respect each other. INURA is 100 percent independent from
any national or supranational institution, from any university, from any local administration. Members try to live an activist role and combine it with critical research (or the other way round): Understand, participate, act.

Philipp also shared his personal experience in Zurich, where he belongs to communities that do not only talk about cooperatives but also live and engage in cooperatives. One such cooperative is Kraftwerk1, established in 2001. 270 people live and 100 people work in 20 businesses in the cooperative's buildings. Other uses are a (public) Kindergarten, a restaurant, a small shop with organic products. In 2012, Kraftwerk2 was established (85 persons) and soon Kraftwerk4 will open its doors. The aims of Kraftwerk are to live in a self-organised way, independently, and ecologically. Every Kraftwerk has been built up without any help from any institution. They all operate with a small common professional administration, a paid board of the cooperative and a lot of committees for all kinds of issues (gardening, guest-rooms, common rooms, bicycle parking, participation, child care, playgrounds, solidarity funds, ecology, cultural issues and many more). Two bodies decide on the most important issues: The tenants assembly and the cooperative's annual general meetings. Kraftwerk1 was set up in the 1990ies along the ideas of bolo’bolo by the P.M. Kraftwerk1 is not the only self-managed cooperative in Zurich. A series of other cooperatives have been built up with similar ideas and structures (kalkbreite.net, mehr-als-wohnen.ch, dasdreick.ch, wogeno-zuerich.ch, karthago.ch). In all these buildings live people with different awareness of the world but most of them are in favor of a more just and ecological future and also want to contribute. But, no one needs to be a Robin Hood, a Rosa Luxemburg or a Che Guevara.

In addition to those lengthy introductory presentation, our guests had also the chance to present their own work and perspective in shorter (20 min) presentations due to time constraints. More specifically, Valeria Federighi presented her university project studying informal architecture, in a Mumbai slum, and Laura Sartori gave an introduction on Economic sociology and ICTs.

Guided visit to SARDEX

In this section we provide a short summary of the outcome our guided visit to the SARDEX premises by Giuseppe Littera, one of the co-founders of Sardex. Detailed descriptions and analyses are available at two complementary publications produced by partners of our project (Littera et al. 2014; Dini & Kioupkiolis 2014) and which will be soon presented at the Inaugural conference of the World Interdisciplinary Network for Institutional Research (WINIR); see Section 4.1.

Sardex is an electronic system of mutual credit intended to support mainly B2B interactions between firms on the island of Sardinia. Sardinia has an area of 24,000 square km, or about 8% of the area of Italy, and a population of 1.6m, or about 2.7% of the population of Italy (60m). Sardinia’s GDP of 33b Euro is about 1.8% of Italy’s 1800b Euro. GDP per capita in Sardinia is therefore about 2/3 of the Italian figure (20k vs. 30k Euro). Although we have not looked at economic data beyond the Wikipedia figures cited here, it is plausible to say that the recent economic crisis has hit Sardinia harder than the rest of Italy. For instance, unemployment increased from 8.6% in 2008 to 14.6% in 2012. It was partly in response to this situation that Sardex was instituted. Sardex is the name given to the Sardex credits as a unit of account, where 1 Sardex = 1 Euro, as well as to the company that provides the credit-clearing service.
Sardex is modelled on the WIR, but uses only an electronic LETS-like system of credit and debt accounting for any size transaction. Rather than charging a fee per transaction it charges a yearly membership fee that varies from 200 Euro for small non-profit ‘social enterprises’ to 3000 Euro for large companies such as the electric utility company (whose Sardinian branch is also a member). For the moment Sardex does not issue large loans such as mortgages. Therefore no interest is applied to any negative or positive balance at all. It is not clear whether this might change in future developments. Unlike the LETS or even WIR systems, in Sardex individual consumers cannot go negative, they need to have a positive credit balance in order to make a purchase. Four years from its founding, the current number of Sardex members is about 2000 companies, out of 146,500 registered VAT numbers in Sardinia, or 1.4% (Crenos Territorio 2014).

The motivation to create SARDEX arose from the realization by the founders, who at the time were living and working in Germany, of the dire situation of the world economy in or around 2007 and of the repercussions the crisis was going to have on the Sardinian economy. The founders took the WIR as a model that could be replicated in Sardinia. They were attracted by the larger geographical reach and turnover of the WIR relative to other CC examples they had examined, and specifically by the focus on corporate rather than individual membership. A for-profit company was chosen over a non-profit cooperative because the latter are perceived as too cumbersome structure in Sardina, whose politics are even more polarized than in the rest of Italy, and they felt that this could be an
obstacle to the joining by average businesses. The Sardex s.r.l. (‘Ltd’) bylaws dictate that all profit be reinvested in the company, which now counts approximately 15 employees.

As a final point on the founding of Sardex, it is interesting to note that none of the founding members has an economics or engineering/computer science background. They are all humanists.

Feedback and impressions

After the end of the meeting, an e-mail discussion took place to help us record some important points made during the meeting and structure our future collaborative work, which is reflected in the rich collaboration that took place the following months. More details on the outcome of these interactions will be made soon publicly available through our collaborative publications summarized in the following section.

3. Collaborative research activities

WINIR conference

After the suggestion of Paolo Dini, the COMPARE team decided to participate in the Inaugural conference of the World Interdisciplinary Network for Institutional Research (WINIR) which will take place on September 11-14th, in London. WINIR is a new network with widely acclaimed scientists from different disciplines such as Geoffey M. Hodgson (University of Hertfordshire, UK), Kathleen Thelen (MIT, USA), Paul J. DiMaggio (Princeton, USA), Douglass C. North (WUSTL, USA), Julia Black (LSE, UK), and Peter A. Hall (Harvard, USA). Thus, the successful submission and forthcoming presentation of the following three interdisciplinary publication co-authored in collaboration by two or more COMPARE partners was considered a big success:  
1) Panayotis Antoniadis & Ileana Apostol, “Designing for local institutions in the hybrid city”  
2) Giuseppe Littera, Laura Sartori, Paolo Dini & Panayotis Antoniadis, “How can community currencies scale and coexist with existing markets and institutions? The case of Sardex.net”  
3) Paolo Dini & Alexandros Kioupkiolis, “Community currencies as laboratories of institutional learning: emergence of governance through the mediation of social value”
The COMPARE project was invited to submit a call for papers at the WideOpen Call for Calls of the Tourette journal, [http://tourette-journal.tumblr.com/](http://tourette-journal.tumblr.com/), a journal on the project of architecture founded by three PhD students at Politecnico di Torino, including Valeria Federighi, one of our external guests at our first meeting in Sardinia. As described on the Tourette's web site “Tourette looks at architecture as a loose and ever-changing discipline, dealing with everything spatial directly and by way of digital culture, shifting institutional ground, political and sociological issues, representational modes, drones and gorillas. We decided to participate at the theme “ACTORS” and submitted successfully the following call for papers, which was one of the 18 submitted calls selected for publication on Tourette #0, while 6 will be carried out in collaboration with the authors.

**Empirical research**

After the end of our meeting, Paolo Dini and Laura Sartori developed a questionnaire targeted to the members of the Sardex network, whose analysis is now part of two of our WINIR papers (Littera et al. 2014 and Dini & Kioupkiolis 2013) and will be soon publicly available. Nine companies, all located in Serramana, were interviewed between the 30th of June and the 3rd of July 2014, doing business in clothing retail, decoration, hairdressing, professional training, food, entertainment, and crafts among others.

The most important recurring observation was the increase in turnover brought by Sardex, on the order of 10% on average. The Sardex-paying customers are either other companies in B2B transactions or they are owners of other companies who spend the Sardex they have earned through their business transactions for personal use at various retail shops. As long as the business is small with sole ownership it is not a problem in Italy to mix company income with the personal income of the company owner.
All companies interviewed had total trust in Sardex as an institution. Several of them expressed genuine gratitude towards the brokers who are seen as problem-solvers and match-makers, for example alerting potential transacting partners located in different towns about each other. It was clear, in fact, that in most cases the brokers have developed personal relationships with many circuit members. In most of the cases in this round of interviews, the person interviewed had some connection with Sardex or with their founders: friendships that predate the founding of Sardex, family relations, or a family relations working for Sardex. Therefore, the trust in the institution could be said to have originated through non-business channels. However, it was interesting to note that in Serramanna there are only 25 companies that are members. The next town, Villacidro, has 15,000 inhabitants and currently 35 members. Several interviewees pointed out that there is still a great deal of scepticism among most of the stores and companies in Serramanna, in spite of the fact that the sceptics often know the members interviewed and Sardex adopters very well.

EINS Summer school

The COMPARE team participated actively in the organization of the 3rd EINS summer school which took place in Volos. Panayotis Antoniadis and Ileana Apostol were two of the main organizers, Giuseppe Littera was one of the lecturers and tutors on the topic of complementary currencies and Alexandros Kioupkiolis participated as a student in the corresponding working group, which together with Brett Scott, Chris Cook, Laura Sartori, and members of the local complementary currency called TEM, among others, developed a concrete proposal for an upgrade of the local initiative, which was presented by the students in front of a committee of local authorities.

As described in the final report of the complementary currencies working group, “Our key innovation in achieving our aim is for the Volos public authority either to directly provide, or to facilitate provision of idle land / buildings within a partnership framework agreement. In return for the use of land & buildings we will create an electronics repair hub on the site. The contributors scavenge for broken electronics and bring it to the repair hub while the electronics repairers fix the electronics and offer them for sales to the consumers. Contributors and repairers are initially paid fully in TEM while consumers pay in euro, TEM or even both. From this base the TEM starts rolling and has a strong foundation for future explorations. In the long term the repair hub will act to reduce unemployment by increasing the skill set of the Volos people thereby increasing the total social value of the project and reducing unemployment benefits paid by the public authority.”

Detailed documentation of the outcome of the summer school, including the work on complementary currencies will be soon available at http://internet-science.eu/summer-school-2014.

Green Academy

During the last week of August, Ileana Apostol participated in a related summer school at Vis, Croatia namely the Green Academy with the topic "Ecommonize: ecological transformation and governance of the commons", that aimed to devise policies for ecological transformation through green economy and participatory democracy. During the keynote talks, panels, and workshops, various forms of grassroots initiatives and self-organization were discussed, as alternative exits to the current multiple crises in the European context. Increased social participation was seen as a means to foster community action, to commonize benefits, or to design participative tools for financing ecological transformation at the local scale. To this end, participatory budgeting was one of the practical tools that was explained through case studies, together with alternative financing tools like complementary currencies, crowd-funding or peer-to-peer banking, ethical banking etc. Successful stories like the Mondragon cooperative in Spain were brought to the fore in more detail, also as an inspiration for future action. The school concluded with a public presentation of the three work modules on nature, society and economy, and the conversation continues within the network of the Green Academy.
4. Conclusions

Our first COMPARE meeting was full of lively discussions, knowledge sharing, interesting observations of everyday life in Sardinia and the operation of Sardex, even art: our meeting ended with an impromptu violin concert given by Philipp Klaus at the main church of Serramanna (see figure on the left). The general feeling was that despite our diverse backgrounds we managed to communicate, learn from each other, and get inspired for future collaboration and a successful forthcoming meeting in Thessaloniki, which will take place on October 11-14th.

As Paolo Dini noted during an e-mail discussion concerning the organization of this meeting, “perhaps the meeting in Cagliari/Serramanna in April was so successful precisely because we all learned interesting and empowering things that were coming from unexpected directions, so we could try to reproduce that also in Thessaloniki”.

Acknowledgements

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